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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,450	06/21/2001	Shi-Chang Wooh	MIT-117J	5772

7590 04/20/2004
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EXAMINER

HORTON, YVONNE MICHELE

ART UNIT	PAPER NUMBER
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3635

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/886,450

Applicant(s)

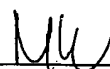
WOOH ET AL.

Examiner

Yvonne M. Horton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,7,11 and 13-17 is/are rejected.
- 7) ☒ Claim(s) 6,8,19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-3,14-16 stand and claims 5,9,10,12 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #5,634,528 to WATTS et al. WATTS et al. discloses a building construction including a support structure (63, 63'), a support beam (84), at least one enclosure cell (80), and at least one tension member (83); wherein the tension member (83) suspends the enclosure (80) and is mounted to the support beam (84), column 4, lines 26-31. In reference to claims 2 and 3, WATTS et al. discloses a support structure in the form of at least two columns (63, 63'). Regarding claim 5, the support beam (84) is a linear beam, see figure 2 and 4. In reference to claims 9 and 10, the support beam (84) also includes a number of tension members in the form of cable elements (83) that are used to suspend the enclosure cell (80). Regarding claim 12, the enclosure cell (80) includes a wall (W), see the marked attachment, and a floor, column 4, lines 47-51.

In reference to claim 14, WATTS et al. stands as disclosing the method of using tension support members including the steps of providing a support structure (63, 63'); installing a support beam (84); providing at least one enclosure cell (80); and suspending the enclosure cell (80) with a tension member (83) from the support beam (84), column 4, lines 26-31. Regarding claim 15, WATTS et al. further discloses suspending several enclosures (80) from the support beam (84), see figures 2-5. In

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reference to claim 16, the support structure (63, 63') includes at least two column.

Regarding claim 18, the support beam (84) is a linear beam, see figure 2 and 4.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 7 and 17 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over US Patent #5,634,528 to WATTS et al. As detailed above, WATTS et al. discloses the basic claimed structure and method except for there explicitly being a number of linear support beams. Although WATTS et al. only appears to show one linear support beam (84), it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the structure with additional support beams, since the mere duplication of essential parts of an invention involves only routine skill in the art. For instance, if the weight of the enclosures being suspended was significant, one skilled in the art might use an additional support beam to aid in properly maintaining the enclosure upon the beam without causing any damage to the support beam itself.

Claims 11 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #5,634,528 to WATTS et al. In view of US Patent #6,170,105 to DOYLE et al. As detailed above, WATTS et al. discloses the basic claimed structure except for the material of the support beam specifically including a fiber reinforced plastic material. WATTS et al. is silent with regards to the material of his support beams,

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but the figures appear to show some type of cementitious or flowable material. It is commonly or very well known in the art to reinforce cementitious or flowable type materials with plastic fibers. DOYLE et al. teaches that it is known in the art to form a building construction support beam member (10) that includes a mat of fiber reinforced plastic material (24), column 2, lines 40-67. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the structural member of WATTS et al. with a fiber reinforced plastic material, a taught by DOYLE et al., in order to contribute to the structural strength and integrity of the support beam itself. The use of fiber reinforced plastic for concrete structures provides excellent corrosion resistance as opposed to the use of steel reinforced concrete, and significantly reduces maintenance, reconstruction or replacement costs.

Allowable Subject Matter

Claims 6,8,19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 01/20/04 have been fully considered but they are not persuasive. In response to the applicant's argument that the tension members of WATTS et al. are not supported by the beam, WATTS et al., column 4, lines 29-31 clearly details that the tension members (83) are supported by the beams (84). Further

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figures 2, 3 and 4, show the tension members (83) as being supported by the beams (84).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne M. Horton whose telephone number is (703) 308-1909. The examiner can normally be reached on 6:30 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl D. Friedman can be reached on (703) 308-0839. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YMH
April 19, 2004

Carl D. Friedman
Supervisory Patent Examiner
Group 3600